

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/11502

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ F16J15/22

Rec'd PCT/PTO 10 MAR 2005

10/527626

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ F16J15/22

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Toroku Koho 1996-2003 Kokai Jitsuyo Shinan Koho 1971-2003
 Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 2002-129440 A (Japan Matekkusu Kabushiki Kaisha), 09 May, 2002 (09.05.02), Full text; Figs. 1 to 21 (Family: none)	1, 8, 9 2-7, 10-13
Y	GB 2285067 A (T&N TEC.), 28 June, 1995 (28.06.95), Full text; Figs. 1 to 7 (Family: none)	2-7
Y	WO 01/48403 A1 (NIPPON PILLAR), 05 July, 2001 (05.07.01), Full text; Figs. 1 to 15 & JP 2001-182839 A	2-7

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:
 "A" document defining the general state of the art which is not considered to be of particular relevance
 "E" earlier document but published on or after the international filing date
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 "P" document published prior to the international filing date but later than the priority date claimed

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 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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 "&" document member of the same patent family

Date of the actual completion of the international search
 09 December, 2003 (09.12.03)

Date of mailing of the international search report
 24 December, 2003 (24.12.03)

Name and mailing address of the ISA/
 Japanese Patent Office

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 3-249482 A (Nippon Pillar Packing Co., Ltd.), 07 November, 1991 (07.11.91), Full text; Fig. 14 (Family: none)	2-7
Y	JP 10-132086 A (Nippon Pillar Packing Co., Ltd.), 22 May, 1998 (22.05.98), Full text; Figs. 1 to 10 (Family: none)	10-13